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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/611,269	07/06/2000	Seiji Hashimoto	35.C14610	4807

5514 7590 06/28/2004

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NEW YORK, NY 10112

EXAMINER

TRAN, NHAN T

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 06/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

14

**Office Action Summary**

Application No.

09/611,269

Applicant(s)

HASHIMOTO, SEIJI

Examiner

Nhan T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 7, 33 and 34 is/are pending in the application.
- 4a) Of the above claim(s) 33 and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4 and 7 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see paper No. 10, filed 4/19/2004, with respect to the drawing of Figures 1 & 2 have been fully considered but they are not persuasive since it is clearly described in the specification that Figures 1 and 2 are prior arts (see specification, pages 2-4).

2. Applicant's arguments with respect to claims 1-4 and 7 have been considered but are moot in view of the new grounds of rejection.

3. Furthermore, the Applicant has added claims 33 and 34 which contain the limitations of the previous non-elected inventions II and III (without traverse) corresponding to claims 31 and 32, respectively, filed 10/22/2003. Therefore, claims 33 and 34 are withdrawn from consideration with respect to the election of invention I without traverse filed 10/22/2003.

### ***Drawings***

4. Figures 1 & 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to

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obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 4 & 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kozuka (US 6,538,693) in view of Shigeki et al (JP 61-128681).

Regarding claim 1, Kozuka discloses an image pickup apparatus comprising: a plurality of pixels each including a photoelectric conversion portion (photodiode 1) which converts an optical signal from an object into an electrical signal and a read portion (MOS 3) which reads out the signal from the photoelectric conversion portion to an output line (see Fig. 1A);

an inherent drive control portion which controls a first mode for reading out from the read portion a pixel noise signal which is obtained by resetting an input portion of the read portion (e.g., the gate of MOS 3 is reset by reset unit; Fig. 1A and col. 4, line 59 – col. 5, line 7), and a second mode for reading out from the read portion an image signal which includes a signal generated by the photoelectric conversion portion (col. 5, lines 8-10); a correction portion

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(differential amplifier 15) which subjects the image signal read out from the read portion, to correction processing which uses the pixel noise signal (see Abstract, col. 5, lines 23-32). It is noted that the drive control portion must be implemented in order for the apparatus to function as disclosed.

Although Kozuka discloses the noise signal removal unit comprising buffer amplifiers (14, 14') and a differential amplifier (15) for correction processing, Kozuka does not teach a detection portion which detects an object condition, and a switching portion which switches over the correction processing of the correction portion in accordance with an output of the detection portion. As taught by Shigeki, comparators (291, 292) are used to detect an object condition by virtue of the sum of the image signal and pixel noise signal output from amplifiers (151, 152). When the amplitudes of the output of the amplifiers (151, 152) exceed a reference amplitude, the correction processing implemented by a differential amplifier (16) is not carried out (switching OFF) to prevent excessive deduction of noise signal (see Fig. 8 and Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art to enhance the image pickup apparatus in Kozuka by modifying the noise signal removing unit to include a detection circuit which detects the object condition by virtue of signal amplitudes output from the buffer amplifiers when the amplitudes exceed a reference amplitude so that the differential processing would not be carried out at the differential amplifier 15 thereby preventing the signals to be excessively deducted, which would degrade image quality.

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Regarding claim 2, the combination of Kuzoka and Shigeki teaches that the comparators (291, 292) detect a signal level when it is higher than a predetermined value (see Shigeki, Abstract).

Regarding claim 4, see the analysis of claim 1.

Regarding claim 7, the combination of Kuzoka and Shigeki also teaches that when the differential amplifier is not carried out, the switching portion (171, 172) is used to replace a signal output from the differential amplifier with a signal of a predetermined level (a signal of saturation level) (see Shigeki, Abstract). It is noted that the switching portion comprises an internal switch of the differential amplifier to switch off differential processing and external switches 171 and 172.

***Allowable Subject Matter***

6. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or fairly suggest the limitation of the detection portion detects that a signal of the pixel noise signal is higher than a predetermined value.

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*Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

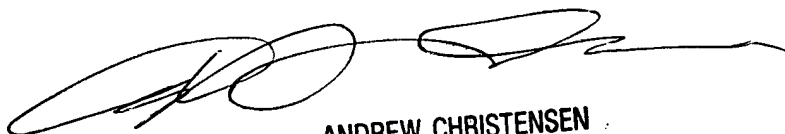
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (703) 605-4246. The examiner can normally be reached on Monday - Thursday, 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT.

A handwritten signature in black ink, appearing to read 'Andrew Christensen', with a long horizontal flourish extending to the right.

ANDREW CHRISTENSEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600